

Getting Your Mac Up and Running

There's something about the Mac's startup chime. Most computers today play a sound as they start up, but the Mac started the whole idea decades ago. And even today, its sound has the right length and warmth—not too long, not too loud, and comfortably familiar.

That chime tells you that the Mac has in fact started and that basic hardware elements inside your Mac (hard disk, processor, memory, and so on) are all operational. After this chime sounds, Mac OS X tests the Mac's hardware (that's when you see the gray screen with the Apple logo and the spinning-wheel indicator), and then actually loads Mac OS X itself (that's when the screen turns blue). When you see the menu bar at the top of the screen and your desktop background has loaded, you know Mac OS X is ready to go.

The entire startup—also called *boot*—process takes about 30 to 45 seconds, depending on the speed of your Mac. Note that on faster Macs, some of the events may pass too quickly for you to notice.

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Starting up your Mac

You start a Mac running Mac OS X 10.7 Lion in the following ways:

- **Press the power button on the Mac.**
- **Press the power button on some Apple Cinema Display LCD monitors.** Note that on some older models, the power button may simply switch the display off; the Apple LED Cinema Display does not have a power button.

Dealing with Startup Problems

If your Mac does not start up correctly or at all, try booting up from another boot disk (if you have one; it can even be the installation DVD of the previous [Snow Leopard] version of Mac OS X) and make sure the startup disk still contains its folders and files (in case it was accidentally wiped out or corrupted, such as during a power failure). You also can run utilities such as Disk Utility from a Snow Leopard installation DVD to try to repair any disk issues, as Chapter 6 explains. Third-party fix-it tools such as TechTool Pro (\$100; www.micromat.com) enable you to create a bootable partition on your hard disk from which you can run its repair utilities.

If you're an advanced user (or a brave one), the Mac has three special startup modes you can use to troubleshoot a Mac that is not starting up correctly. One is single-user mode (press and hold **⌘+S** during startup), which boots you into the Mac's Unix core, where you can type Unix commands to explore and troubleshoot the system. Appendix D has more information on working with Unix.

The second special startup mode is verbose mode (press and hold **⌘+V** during startup), which displays a list of all startup activities and any error messages. This may help you identify the problem (such as a login item that is corrupt and needs to be deleted); you'll have to boot from a different disk to delete or modify any such files if the Mac won't boot from its normal startup disk. Note that neither single-user or verbose mode works if you've used Firmware Password Utility to protect the Mac from unauthorized use, as Chapter 26 explains.

The third special startup mode is the new Recovery System (press and hold **⌘+R** during startup), from which you can run diagnostic utilities such as Disk Utility (see Chapter 6) and reinstall Mac OS X if necessary, as Appendix A explains.

Note

Check whether the Mac has already been turned on and is in sleep mode. In this case, the screen is dark, so it's easy to believe the Mac is turned off. You can tell if the Mac is in sleep mode if a light is pulsating on its case. This is a visual cue that the Mac is asleep; the pulsing light is meant to evoke snoring. If the Mac is asleep, tapping the mouse, touchpad, or keyboard wakes it up. But don't panic if the Mac is asleep and you press its power button: That wakes it up as well, though usually you'll get a dialog box asking if you want to shut it down, put it to sleep, or restart it; just click Cancel to keep it on. ■

Choosing a startup disk

By default, Mac OS X starts up from your primary disk—the hard disk inside your Mac. But it can start from other disks as well, such as DVDs and external hard disks. It can even start up from a disk image on the network. You might start from a DVD—such as the previous Mac OS X Snow Leopard's installation DVD—to run Disk Utility on a non-starting primary disk. You might start up from a bootable external disk that contains applications (including the Mac OS X Lion installer) or setup configurations you are testing (something developers and IT staff might do, but not regular users).

To choose your startup disk, you have several choices:

- Press and hold Option as the Mac's startup chime begins; a screen appears showing icons for each disk available to boot from (you can release Option then). Select the desired disk by using the mouse or touchpad or by pressing ← or → until the desired disk is highlighted (an ↑ icon button appears below it). Then press Return or click the ↑ icon button to boot into the selected disk.
- Press and hold the C key as the Mac's startup chime begins to start up from a CD or DVD. Note that this method is guaranteed to work with Apple's SuperDrives, which come with every Mac but the MacBook Air (and you can buy an external one for that laptop). If you have another manufacturer's DVD drive in or attached to your Mac, it may or may not be bootable.
- Press and hold the D key as the Mac's startup chime begins to start up from the first internal disk in a Mac that has multiple internal disks (meaning a Mac Pro).
- Press and hold the N key as the Mac's startup chime begins to start up from the network. (A network startup disk image must be properly configured and enabled, and the Mac must be connected to the network server that hosts the disk image.)
- Press and hold the T key as the Mac's startup chime begins to boot the Mac into Target Disk mode, which lets another Mac connected to it via a FireWire cable see it as an external disk.
- Boot your Mac from its default disk, and then choose  ⇨ System Preferences. Go to the Startup Disk system preference (by clicking its icon or choosing View ⇨ Startup Disk), choose a startup disk from the list, and click Restart. Note that this startup-disk choice remains in effect each time you start the Mac until you change the Startup Disk system preference again. (By contrast, pressing and holding one of the keys during startup changes the default startup disk for just that one time.)

Note

A system preference is the method that Mac OS X uses to store user preferences on how Mac OS X operates. Some third-party services that work across applications also install system preferences. They're all presented in the Systems Preferences application, which is available at all times from the  menu. Chapter 28 surveys the system preferences. ■

Logging in to Mac OS X

After the Mac has finished its startup process, the login procedure begins. The login procedure essentially identifies you to the computer, as a security measure, to ensure that only people authorized to use your Mac can access it; it also serves a second purpose of activating your personal workspace (called a *user account*, explained in Chapter 27), which contains your applications, preferences, and documents.

The login process is mandatory when you start (or restart) the Mac, but you may never see it occur. That's because by default Mac OS X automatically logs into the primary user account

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that was created when you first installed Mac OS X. Thus, whenever a user turns on the Mac, he or she is taken directly to the desktop and can begin using the computer.

Login window options

It is possible to disable the automatic login (Chapter 27 explains how to set up user accounts and login options). If you disable automatic login, the Mac asks for your username and password before logging in to your user account and taking you to the desktop.

New Feature

The login window in Mac OS X Lion has been redesigned for a slicker look. But it works the same way as in previous versions of Mac OS X. ■

You might disable automatic login for a Mac used at an office or other public space, so no one but you can use your computer after it is shut down. If automatic login is disabled, you might see one of two login windows when you start the Mac:

- **List of users:** One login window option presents a list of users, where you click your name or the icon representing you from the list of users (for Macs that have multiple accounts set up, such as for a family computer), and then enter your password in the field that appears. A check mark appears to the left of the currently logged-in user name. (If you accidentally selected the wrong user from the list, you can click the ← icon button to the left of the username to return to the list of users.)
- **Name and password:** The other login window option presents a Name text field and a Password text field, and you must type both to log in. This is meant to be more secure, so a visitor must know or guess both the username and password.

The login window also appears after you log out of Mac OS X (a process explained later in this chapter) or when you switch users by using Mac OS X's Fast User Switching feature to let people switch from one user account without restarting or logging out; Chapter 27 explains how to set up and switch accounts.

Password entry

If you enter your username or password incorrectly, the login window shakes sideways. The Password text field also clears so you can reenter the password. Note that the Name text field does not automatically clear; for security reasons, Mac OS X does not inform users if they have entered a wrong username. If you incorrectly entered the username, press the Tab key to highlight the text in the Name text field, so you can reenter it.

Note

Passwords are case-sensitive, so capitalization must match that of the password as originally set up. ■

If you enter the password incorrectly three times in a row, a password hint appears at the bottom of the screen. Clicking the Forgot Password button also reveals the password hint. (You enter password hints when creating a user account.)

New Feature

Clicking the ? icon button on the right side of the password field when logging in opens a pop-over that has an option for resetting the password using your Apple ID, if you enabled that capability during installation (see Appendix A). That pop-over also shows your password hint, should you want to see it before it's automatically displayed after three failed login attempts. ■

The login window's icon buttons

In the login window, three icon buttons appear at the bottom of the window: Sleep, Restart, and Shut Down. You can use these immediately, instead of having to log in to the Mac first. They come in handy when you accidentally turn on the Mac and want to put it back to sleep or shut it down.

You can configure Mac OS X so that the Sleep, Restart, and Shut Down buttons do not appear in the login window. To do so, choose  System Preferences and go to the Users & Groups system preference, click the Login Options button, and then deselect the Show Sleep and Shut Down Buttons option. By coupling this setting with the use of the Firmware Password utility explained in Chapter 26, you can make it all but impossible for someone to circumvent the requirement to log in.

Turning Off and Logging Out

When you've finished using your Mac, you have several options:

- Put the Mac to sleep.
- Leave the Mac on until the screen saver engages and then, later, the Energy Saver system preference settings put the computer to sleep automatically. (See Chapter 28 for details about the Desktop & Screen Saver and Energy Saver system preferences.)
- Log out of your account so people cannot access your Mac without first entering your (or their) login password.
- Shut down the Mac, which logs out of your account and closes the operating system, before switching off the power. This option saves energy and provides greater safety in case of power failure.
- Restart the Mac. This isn't really a way to finish working with your Mac; rather, it's an option typically used to complete the installation of certain system updates or to change startup disks.

Caution

If you cut the power to a Mac without first switching it off (either by pulling the plug or by removing the battery from a MacBook), you risk damaging the files on your Mac. Although this damage may not be immediately noticeable, an accumulation of damage could eventually cause problems, such as applications no longer working correctly or files missing data. Always shut down before disconnecting the power source. ■

Logging out of Mac OS X

You can log out of Mac OS X when you have finished using your computer. This provides an additional level of security over putting the Mac to sleep because it requires people to enter a password before they can begin using the computer. Logging out of Mac OS X is also a way to switch from one user account to another.

You can log out of Mac OS X by choosing   Log Out *username* or by pressing Shift++Q. Either way, a dialog box appears that provides two buttons: Log Out and Cancel. Click Log Out or press Return to immediately log out, or wait 60 seconds for the Mac to do it for you. Click Cancel to resume working on the Mac, using your current user account.

You also log out when switching to another user account, as Chapter 27 explains.

When you log out, Mac OS X quits all running applications and then displays the login window. From there, select a user account and enter the corresponding password to log in as that user. You also can click the Sleep, Restart, or Shut Down icon buttons if you meant to do one of those actions instead of logging out.

Putting your Mac to sleep (and waking it up)

When you're not going to use your Mac for a while, you can save energy by putting it to sleep. When you want to start using your Mac again, you can quickly wake it up. Waking up the Mac is much quicker than starting it up from being powered off.

It's usually good to let the Mac sleep during the day when you're not using it, because Mac OS X does some background maintenance when asleep that helps keep it operating smoothly.

You can put your Mac to sleep in any of the following ways:

- If you have a MacBook, simply close the screen lid.
- Choose   Sleep.
- If you are using a keyboard with an Eject key, press Control+Shift+Eject or Option++Eject to immediately put the Mac to sleep. Or press Control+Eject, and either click the Sleep option from the dialog box that appears or press the S key.
- Press the power button on your computer (or on your Apple display, if it has a power button). Then click the Sleep button in the dialog box that appears or press the S key.

- Log out of your Mac, and click the Sleep icon button in the login window that appears.
- Choose   System Preferences, go the Energy Saver system preference (see Chapter 28), and set the automatic “go to sleep” time by using the Computer Sleep slider. That makes the Mac go to sleep automatically after it’s been inactive for the specified time (meaning you haven’t touched the mouse, touchpad, or keyboard and that no applications are running that are reading from or writing to a disk).

You can wake up your Mac in any of the following ways:

- If you have a MacBook, simply open the lid.
- Press any key on the keyboard. (To prevent the keypress from inserting text into an active document or text field, it’s wise to get into the habit of using the Shift key as your wake-up key.)
- Click or move the mouse or touchpad.

Note that when you awaken a sleeping Mac, you may get a login window in which you have to enter your password. The login window also has two icon buttons: Cancel, which puts the Mac back to sleep, and Switch User, which lets you log into a different user account. (The login window appears if you configured the Security & Privacy system preference to require a password to reawaken a Mac, as Chapter 26 explains.)

Shutting down the Mac

While you can leave your Mac permanently running or let it go to sleep, you may want to completely switch it off at the end of the day. That reduces energy usage and makes it less likely the Mac could be damaged due to heat buildup or an electrical surge.

You can shut down a Mac several ways, including:

- Press the power button on your Mac (or your keyboard if it has one), and click Shut Down or press Return when the confirmation dialog box appears onscreen.
- If you are using a keyboard with an Eject key, press Control+Eject and click Shut Down or press Return in the dialog box that appears.
- Choose   Shut Down. Click Shut Down or press Return when the confirmation dialog box appears, or you can wait 60 seconds and the Mac shuts down automatically.
- Log out and click the Shut Down icon button in the login window.

When you go through the shut-down process, Mac OS X tells all open applications to quit and proceeds to shut down. If any applications have unsaved data, you are prompted with a Save dialog box before shutting down.

Tip

When shutting down, watch the desktop until the screen goes blank, which lets you know the Mac has actually shut down. When you shut down Mac OS X, it first tries to quit all active applications, but applications may not quit if they have unsaved documents. In this case, the applications present a dialog box asking if you want to save the unsaved documents, and the shutdown is delayed. If you walk away, you'll come back only to find that the shutdown didn't complete, and then you have to address the unsaved documents, wait for the Mac to shut down, and start it again to be able to use the Mac—a process that can be quite frustrating. ■

Note

You can use one other method to shut down the Mac: a forced shutdown. This can be handy in the event of a system crash, when there is no other way to shut down or restart the Mac. To use this method, simply hold down the power button for at least five seconds. However, you should avoid a forced shutdown if at all possible: Any unsaved document data is lost, and it is possible to cause damage to the system. ■

Restarting the Mac

You need to restart Mac OS X far less than many other operating systems such as Windows. That's because Mac OS X is very stable and doesn't require a restart to clear its memory as Windows does. Plus, many applications can be installed in Mac OS X without requiring a restart to activate their features. Still, sometimes you need to restart the computer after installing some software updates (such as Apple's Mac OS X software updates) or when installing some applications.

You can use the following methods to restart the Mac:

- Press the power button on your Mac (or on certain Apple-branded monitors). When the confirmation dialog box appears, click Restart.
- If your keyboard has the Eject key, press Control+Eject. In the dialog box that appears, click Restart.
- If your keyboard has the Eject key, press Control++Eject; the Mac begins to restart immediately.
- Log out and click the Restart icon button.
- Choose  ⇨ Restart. When the confirmation dialog box appears, click Restart or press Return—or simply wait 60 seconds and let the Mac restart automatically.

During the restart process, Mac OS X tells all open applications running in the system to quit. If an application has an open document with unsaved changes, it asks you if you want to save the changes before quitting. Only when all the applications have quit does the Mac shut down and then start back up again.

Resuming Where You Left Off

A feature that iPhone, iPod Touch, and iPad users love is that when they turn off their device or put it to sleep, they pick up where they left off when they turn on or reawaken their device. Mac OS X Lion can do the same.

When you shut down, log out of, or restart your Mac, the confirmation dialog box has the Reopen Windows When Logging Back In option, as Figure 1.1 shows. If you want Mac OS X to reopen the currently open applications, documents, folders, and disk windows the next time it starts up or logs in to the same user account, make sure that option is checked before you confirm the shutdown, logout, or restart.

New Feature

The option to have applications and windows reopen upon startup or login is new to Mac OS X Lion. ■

FIGURE 1.1

The logout, restart, and shutdown confirmation dialog boxes all present an option to reopen the current windows when you log into or start the Mac.



Summary

Starting up the Mac is as easy as pressing the power button, but more sophisticated capabilities exist when you need them, such as the ability to start up from different disks and to require login so only authorized users can access the Mac. This combination of simplicity and rich capabilities extends to the Mac's option to go to sleep, restart, and shut down, as well as to switch among authorized users.

And new to Mac OS X Lion is the ability to have the Mac remember what windows were open when you log out, restart, or shut down and automatically reopen them when you next log in or start the Mac.

